



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,320	02/06/2004	Kevin S. Marchitto	D6327CIP	8525
<div>7590 11/28/2007</div> <div>Benjamin Aaron Adler ADLER & ASSOCIATES 8011 Candle Lane Houston, TX 77071</div>				
			EXAMINER KENNEDY, SHARON E	
			ART UNIT 1615	PAPER NUMBER
			MAIL DATE 11/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/774,320

Applicant(s)

MARCHITTO ET AL.

Examiner

Sharon E. Kennedy

Art Unit

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS; WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 3, 6, 8, 18, 26, 29-31, 40-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7, 9-17, 19-25, 27, 28 and 32-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/22/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

The prior art considered in the parent application has been considered herein. If applicant wants a listing of that prior art to appear on the face of any patent issuing from this application, applicant should submit a PTO Form-1449 with a listing thereof. Copies of the prior art are not necessary.

Election/Restrictions

Claims 3, 6, 8, 18, 26, 29-31, 40-50 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and specie, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 5, 2007.

Double Patenting

Note is made of the Terminal Disclaimer filed November 8, 2007, in Application Serial No. 10/739,680, which refers to this application.

Regarding Application Serial No. 10/736,133, note is made of claims 37-40, 42-50, 70 and 71 (version January 4, 2007). These are device claims and include an antenna and a radio frequency power supply in addition to other embodiments, which overlap the instant claims of this application. If these claims were presented together in a single application, the examiner would have restricted the device from the composition. Accordingly, there is currently no issue of double patenting.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-17, 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 13-17 recite the wrong preamble, a "method". They will be examined as if the preamble recited the composition since this was clearly intended. Claim 20 reads like a method claim and the boundaries are therefore confusing with regard to what the composition may or may not comprise. The method step of claim 20 applied to a composition claim cannot be accorded much patentable weight.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 9, 10, 19, 20, 21, 22, 24, 32, 36, 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Joyce, US 4,558,690. Regarding claim 1, applicant merely claims a biomolecule and an electromagnetic energy absorbing species associated therewith. Joyce discloses a cytotoxic agent, for example, encapsulated within a polymeric coating which melts at an elevated temperature, and melting the coating with radiofrequency waves. Regarding claim 10, applicant states that the electromagnetic energy absorbing species is a "susceptor". A susceptor is merely a material which may absorb electromagnetic energy, typically of a radiofrequency type, and is the ability of a material to convert the energy to heat. Accordingly, the examiner takes the position that Joyce anticipates the claimed invention. Even if applicant argues that the material behaving like the susceptor is simply the surrounding tissue (i.e., tumor), the claims are still anticipated because the tumor can comprise the electromagnetic energy absorbing species. Regarding claim 21, the claimed "change in state" is anticipated by the melting of the coating, or, under a different theory, the tumor necrosis (see claim 1, paragraph (a)). Regarding claims 22, 37, if the change in state was tumor necrosis, then this inherently involves denaturation.

Claims 1, 9-17, 19, 20, 21, 24, 32-36 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Tachibana et al., US 6,332,095. Note especially column 4, lines 20-25, wherein the photosensitive substances can be combined with anti-tumor agents. See also column 3, lines 43+, for the photosensitive substances. Regarding claim 12, it is well known that fullerenes form dipoles.

Claims 1, 2, 4, 5, 9, 10, 12, 13, 14, 19-21, 24, 27, 28, 32, 35, 36 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Pandey et al., US 5,093,349. See column 9, particularly lines 60+ describing a covalently bond target specific compound, such as ligand specific receptors, to the electromagnetic energy absorbing species (deuteroporphyrins), which may also be dimers (see ether dimer bridging columns 3, 4). Regarding claim 14, porphyrins are inherently paramagnetic and diamagnetic.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 23, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pandey '349 in view of Jori et al., US 4,913,907. Pandey discloses all of the

claimed embodiments except for including the composition into a liposome. Jori exemplifies that it is well known to include the Pandey compounds into injectable liposomes so that they may be more compatible in tissue. Accordingly, it would be obvious to one of ordinary skill in the art to place the Pandey composition within a liposome as taught by Jori so that the Pandey composition exhibited these enhanced characteristics.

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See also Sessler et al., SU 5,587,371, particularly columns 5 and 6.

Applicant should note that the examiner is not required to apply all possible prior art rejections, even with the applied references above. The examiner is only required to reject each unpatentable claim one time. Applicant is expected to read all the references cited by the examiner, particularly those applied, and make their own determinations as to anticipation or obviousness for each claim. The lack of a rejection of a claim over a particular reference is not an indication that the claim is allowable over that reference, unless otherwise indicated.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon E. Kennedy whose telephone number is 571/272-4948. The examiner can normally be reached on Monday-Thursday.

Application/Control Number:
10/774,320
Art Unit: 1615

Page 7

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on 571/272-8373.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sharon E. Kennedy/
Sharon E. Kennedy
Primary Examiner
Art Unit 1615